

REMARKS/ARGUMENTS

Claims 1-11 and 13-18 are pending. Claim 1 is currently amended. Claim 12 is canceled without prejudice. Claims 13-18 are added.

New claims 13-18 find support in original claims 2-4, 10 and 11. Examiner Teskin has indicated the allowability of such claims if rewritten in independent form including all the limitations of the base claim. This has been done in the presentation of claim 13, that includes all the limitations of original claim 1 as well as at least one of those of claims 2-4, 10 and 11. New claims 14-18 parallel claims 2-4, 10 and 11 and are dependent on and include all the limitations of claim 13, which as currently presented is in allowable form. No new matter has been added.

Claim 1 as amended makes clear the details of step b) and clarifies that the overall process does not require a precipitation or recovery step of the first polymeric block. Amended claim 1 finds support throughout the specification, and more specifically at page 4, lines 4-10 and 15. No new matter has been added.

Regarding the 35 U.S.C. § 103(a) rejection, *Simon* teaches a process for controlled radical polymerization in an aqueous dispersion in the presence of selected nitroxyl radicals (pg 1, 1st para). *Simon* discloses a multi-step process that includes: (1) polymerization of a first block polymer (Table 1: Examples B1-B10), (2) recovery and isolation of the first block polymer (pg 21, 1st para), and (3) dissolution of the first block polymer in n-butylacrilate resulting in polymerization of a second block polymer (Examples B16-B19). In contrast, Applicants' process eliminates step (2) of the *Simon* process by adding the second monomer directly into the reaction system containing the polymerization mixture of the first step, resulting in the desired block copolymer. Feeding methacrylonitrile to the polymerization mixture of step a), i.e. eliminating the recovery/isolation step, alleviates the disadvantages of

having to handle two distinct polymerizations, which require the use of two polymerization reactors in series, and eliminates the need for subsequent purification steps (spec. pg 3, lines 4-12, and pg 4, lines 4-10). *Simon* fails to disclose or suggest a process without recovery and isolation of the first block polymer.

In addition, Applicants' process, having the advantage of eliminating the precipitation and recovery phase of the first polymeric block, provides superior yield, Mw control and polydispersity control over processes that include such a phase (i.e. *Simon*). This is seen when comparing Applicants' Examples 1-6 that do not include the precipitation/recovery step (51-86% yield; 71,000-153,000 Mw; 1.17-1.35 PD), with the Comparative Examples 1 and 2 that include the step (20-25% yield; 338,000-360,000 Mw; 1.78-1.83 PD).

Furthermore, M.P.E.P. 2144.04 (Part II B) states that elimination of a step or an element while retaining the step or element's function is an indicia of unobviousness. Applicants' invention is a process for the preparation of block copolymers that can be carried out as a continuous process without any intermediate precipitation and recovery phases of the first polymeric block. Accordingly, Applicants' elimination of the precipitation/recovery step is non-obvious in view of *Simon*'s disclosure that includes the step.

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections and passage of this case to issue.

Respectfully submitted,

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